

Award Number: **W81XWH-12-1-0114**

**TITLE: "Prostate Cancer Research Training in Health Disparities for  
Minority Undergraduates."**

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Nashville, TN 37208

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Fort Detrick, Maryland 21702-5012**

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14. ABSTRACT Meharry faculty mentored six Fisk university students by providing training opportunities in ongoing research projects. Four students were rated as excellent, and two students were rated as good. The students are still undergraduates at Fisk University and are yet to apply for postgraduate positions. The students reported that the program met its training objectives but two students did not understand why they had to carry out community outreach as part of research. All six students prepared posters; four are completed while two are near completion. We met all four training program aims to: 1). Improve knowledge about PCa epidemiology and ethnic disparity. 2). Enhance familiarization with research methods, and critical review of the literature. 3). Improve understanding of communication networks in the African-American community, and Human subject protection training. 4). Improve laboratory and epidemiological methods and skills. The challenge of student commitment will be addressed in the following summer by including the requirement for interns to sign a contract to complete all program assignments.					
15. SUBJECT TERMS Prostate cancer, Dietary risk factors, Lycopene, Genetic predisposition, African-Americans, Cancer research training, Quality of life, Community outreach, Recruiting study participants, Cell line inhibition, Animal studies, Prostate cancer screening.					
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## INTRODUCTION:

The Meharry Medical College (MMC) Prostate Cancer Research Program (PCRP) funded by the Department of Defense utilizes a multidisciplinary approach to address the issue of PCa ethnic disparity. Our research cuts across basic science, translational and clinical areas, addressing issues of barriers to PCa screening, investigating the role of diet and nutrients in PCa risk, and studying biological responses of PCa cells to specific exposures in vitro and within mice models to better understand the role they may play in carcinogenesis. **The program goal** is to stimulate the interest of young scientists so as to empower them to consider an academic career in PCa research by providing summer training opportunities for HBCU undergraduates. This is an efficient strategy for sustaining the next generation of minority PCa researchers who will study PCa disparity. **Program Plan:** Fisk University was established in 1867, a couple of years after the Emancipation Proclamation, to provide a comprehensive and quality undergraduate education open to all, regardless of race, and has continued to meet its mission. Across the street from Fisk University, Meharry Medical College (MMC) has maintained an impressive history of leadership in the education and training of minority physicians, and the provision of health services for minority populations in the United States since 1876. These two institutions with a similar mission and passion to serve the same population of the under privileged, are conveniently located for easy collaboration, being situated on the opposite sides of Dr. D.B. Todd, Jr. Blvd, in Nashville. Creating mentorship relationships at the undergraduate level is a solid foundation for Fisk undergraduates to confidently conceptualize their educational growth in the medical field with a focus on research that will impact the African-American community positively. Given the Meharry-Vanderbilt Alliance since 1999, retention of our NCI Comprehensive Minority Institution/Cancer Center Partnership (U-54) grant since 2000 in partnership with the Vanderbilt-Ingram Cancer Center, and several independently funded investigators at Meharry, we are in a very good position to offer a summer training program for undergraduates. This program will enhance knowledge, research competence and skills, foster positive attitude to biomedical research, stimulate interest in prostate cancer research, develop strong mentorship relationships that are expected to continue beyond this period. The program curriculum included tutorials, seminars, community activities, laboratory experiments, data collection, data management, and development of research reports. **Program aims:** 1). Improve knowledge about the epidemiology of prostate cancer, and the existing ethnic disparity in both incidence and mortality statistics. 2). Enhance familiarization with research methods and the ability to critically evaluate scientific literature in the area of prostate cancer. 3). Improve the understanding of the dynamics of developing, maintaining and sustaining communication networks in the African-American community, and undergo Human subject protection and safety training. 4). Improve laboratory and epidemiological methods and skills particularly related to the research projects of the mentors in this program. **Projects:** 1). Community-Based Participatory Research: A prostate cancer education program for low-income African-Americans. 2). Basic science research: Regulation of the Erk signaling pathway by the PPAR gamma ligand troglitazone. 3). The role of lycopene (antioxidant) in prostate cancer risk among African-Americans and Africans. 4.) Case-control study of pesticide exposure and prostate cancer in African American and Caucasian men. 5). Urology symptoms in Nigerians. The program advisory board is composed of MMC and Fisk faculty and headed by Lemuel Dent, M.D., associate professor and chair of surgery at Meharry.

**BODY:**

**Statement of Work: Start-Up Phase and Plan Development**

**(Month 1 – 4)**

**Task 1:**

Planning for this summer program started at the beginning of the academic year with discussions with relevant administrators (Vice-President for research at MMC, the Provost at Fisk University, Fisk Grant Manager, and Shirley Rainey-Brown (Co-PI). Due to illness Dr. Brown had to find a substitute Co-PI, Jennifer Adebajo, Ph.D., who therefore submitted a letter of support to become the new Co-PI. This personnel change and budget revisions were then submitted to the DOD for approval.

Selection of Summer Interns: Program Advertisement:

-Year 1: February 2012 -Year2:  
February 2013

- 1 Co-PI informed faculty at Fisk University to encourage their students to apply for and make use of the opportunity using mass email.
- 2 Distributed flyers on Fisk University Campus.
- 3 Seminar hosted at Fisk University at which program mentors show-cased their research projects (See Appendix 1: Program Seminar Flyer)
- 4 Seminar presentations: Five pilot projects were presented by the program mentors at the Seminar hosted at Fisk University.
- 5 PI identified Meharry faculty relevant to this program, met with them individually, and secured their cooperation to participate as speakers in the program tutorials.
- 6 Development and Design of program materials:
  - Application package (Appendix 2)
  - Program evaluation tool (Appendix 3)

Deliverables Annually:	Meetings	2		
	Speakers	20	Seminar	1
			Program Posters	6

**Task 2:**                      **Training Primary Mentors**                      **(Month 3 – 4)**

This program ran smoothly based on lessons learned when the PI conducted a similar summer internship training between 2008 – 2010. The new Co-PI went received an individualized orientation and was able to carry out her role as expected both in year 1 and in year 2. The new program mentor, Sakir Abdulkadir, is an experienced professor and mentor at Vanderbilt University who had undergone mentoring training in the past. He has post-doctoral and doctoral students in his laboratory that assisted him to mentor the program undergraduates. Ms. Monica Logan, a doctoral student, was identified as the direct assist for this program.

Each mentor had access to the Meharry Office of Faculty Development for additional support to update regarding mentoring skills.

Deliverables: The PI met privately with each primary mentor at the onset in year 1, and conducted a second meeting at the onset of year 2.

**Task 3:**                      **Development of research apprenticeship program**                      **(Month 3 – 5)**

Core course for all trainees: A core prostate cancer course was developed for this program and experts were invited to deliver presentations to the interns. The interns also received detail information about each primary mentor's research projects, and they also received expert presentations from external prostate cancer researchers from Howard University, Washington DC and Atlanta GA.

Training program (Apprenticeship): Each mentor developed an apprenticeship plan for each of the students they mentored. This involved expecting them to read scientific materials in the area of study, get involved in data collection in the laboratory or in the community, and where applicable learn to manage electronic data base, analyze and interpret statistical reports. The same course was repeated annually.

Deliverables: Course work (Appendix 4).

**Task 4:**                      **Program Implementation**                      **(Month 5 – 12) & (Month 17 – 24)**

Year 1: The Summer Program ran for 9 weeks in year 1 and in year 2:

May 21, 2012 - August 3, 2012 & May 20, 2013 – August 2, 2013.

Every year the program started off with a one-week PCaRT Short Cancer Course at which students received introductory information in various research related fields from 20 experts. After the one week intense course work the interns spent the following 8 weeks completing the following training process:

- 1 Literature review
- 2 Critical reading and summarizing of topic related research articles (At least 3)
- 3 Reading and understanding research project aims and objectives, methods, and protocols.
- 4 Conducting research

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- a. Basic science projects (Laboratory experiments)
- b. Community-based research (Outreach, participant recruitment, and consenting)
- 5 Data collection and Data management (Interviewing participants, data entry)
- 6 Data analysis and preparation of results
- 7 Preparing reports and/or posters

The mentoring relationship was maintained after the summer to varying degrees by each mentor-mentee pair. The Co-PI was contacted as needed to track summer interns during this period.

Annual Deliverables:

- 6 Posters. (Appendix 5: Poster Titles)
- 6 PowerPoint presentations.

**Task 5:                      Report and Presentation of Program Outcome                      (Not Applicable)**

Mentors are encouraged to keep in contact with their mentees before and after they graduate from college, providing them with letters of recommendation as they apply for positions in graduate schools all over the country. The Co-PI actively encouraged Fisk University faculty to inform their students about this program so as to increase the number of applicants. The PI contacted two Fisk University fraternities to distribute information about the summer program. Four students took up part-time positions as community navigators and worked on Dr. Ukoli's ongoing community-based prostate education program.

We plan to source for funds to continue summer training program for undergraduates, and will be responding to the 2013 DOD PCRP announcement and the NIH R25 program announcement.

Deliverables:

- Tracked six 2012 summer trainees & six 2013 summer interns
- Program Booklet            (Appendix 6)

**KEY RESEARCH ACCOMPLISHMENTS:**

This program succeeded in meeting its goal of establishing a prostate cancer summer research training for HBCU undergraduates at Meharry Medical College.

1. The prostate cancer summer research program (PCaRT) has been established at Meharry Medical College, and the program has been implemented in its entirety in the summer of 2012 and 2013.
2. In 2012, a previous summer intern, Bomadi Ogaga, was maintained in the PI's program as a research assistant. Uncompleted PowerPoint presentation titles "The role of massage in cancer therapy"
3. In year 1 (six) and year 2 (seven) HBCU undergraduates were involved in pilot projects under the mentorship of Meharry faculty in the area of basic, translational and clinical research, and they submitted course evaluations.
4. In year 3 of this award we invited two of our former students to continue with data collection, entry, and analysis. One student worked with the PI and the other student worked with primary mentor Dr. Sanderson.
5. Two of the mentor-mentee teams include collaboration with investigators from Vanderbilt University, and one team had a collaborator from Tennessee State University, Nashville. All other mentors were based at Meharry Medical College.
6. The program has access to two basic science research laboratories at Meharry developed by Dr. Stewart and Dr. Chen, and two epidemiology research programs developed by Dr. Sanderson and Dr. Ukoli.
7. Year 1 Pilot Projects.

Name	MENTOR	RESEARCH AREA
Favours, Jacquelyn	SANDERSON, M.	PCa Community-Based Research
Shelton, Debresha	STEWART, L.	PCa Cell Study
Sease, Ayesha	CHEN, Z.	PCa Animal Model Study
Jones, Candace	UKOLI, F.	PCa Community-Based Education Intervention
Davis, Contessa	UKOLI, F.	PCa Dietary Vitamin E Case-Control Study
Blassingame, Raquel	ABDULKADIR, S	PCa Animal Model Study

Project 1: (Ayesha Sease): Identification of Pten Inactivation in Genetically-Engineered Mouse Models. (Mentor: Zhenbang Chen).

Project 2: (Raquel Blassingame): The Role of NKX3.1-regulated gene, *RAMP1*, in Prostate Tumorigenesis. (Mentors: Abdulkadir & Monica Logan)

Project 3: (Jacquelyn Favours): Prostate Cancer Screening Among Diabetics and Non-Diabetics. (Mentors: Maureen Sanderson & Jay Fowke)

Project 4: (Contessa Davis): Dietary Vitamin E Intake and Prostate Cancer Risk in African American Men. (Mentor: Flora Ukoli).



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Project 5: (Candace Jones): Religion and Prostate Cancer Screening Habit of African-American Men. (Mentor: Flora Ukoli)

Project 6: (Debresha Shelton: The Effect of Androgen Receptor Function on Pioglitazone Responsiveness in Prostate Cancer Cells. (Mentor: LaMonica Stewart).

Year 2 Pilot Projects:

<u>Name</u>	<u>MENTOR</u>	<u>RESEARCH AREA</u>
Dennis, Tierra Michelle	SANDERSON, M.	PCa Community-Based Research
Odiase, Peace	STEWART, L.	PCa Cell Study
Addai, Prince Gyekye	CHEN, Z.	PCa Animal Model Study
Crayton, Marcus	UKOLI, F.	PCa Community-Based Education Intervention
Williams, James	UKOLI, F.	PCa Dietary Vitamin E Case-Control Study
Mittal, Ashmit	ABDULKADIR, S	PCa Animal Model Study
Hashi, Hashi	UKOLI, F.	PCa Diet Pattern Study. (TSU Guest Student)

Project 1: (Prince Addai): Molecular Mechanisms of Acridone Alkaloids in the Inhibition of Prostate Cancer Cells. (Mentors: Zhenbang Chen & Cosmos Okoro).

Project 2: (Ashmit Mittal): Effects of Pim1 Inhibitor on Prostate Cancer Tumorigenesis. (Mentors: Dr. Abdulkadir, Irina Doubinskaia, Riet van der Meer)

Project 3: (Tierra Dennis): High Blood Cholesterol and Prostate Cancer Risk. (Mentors: Maureen Sanderson & Mary Kay Fadden)

Project 4: (James Williams): The Role of Dietary Vitamin E in Prostate Cancer Risk among African-American Men. (Mentor: Flora Ukoli).

Project 5: (Marcus Crayton): Level of Prostate Cancer Knowledge among African-American Men in Nashville and Memphis. (Mentor: Flora Ukoli)

Project 6: (Peace Odiase: The Effect of Androgen-Regulated Oncomirs, MIR-27A/B on Peroxisome Proliferator Activated Receptor Gamma (PPAR $\gamma$ ) Levels in Human Prostate Cancer cells. (Mentor: LaMonica Stewart).

Project 7: (Hashi Hashi): The Role of Plasma Vitamin E in Prostate Cancer Risk in Black Populations. (Mentor: Flora Ukoli).

## **REPORTABLE OUTCOMES:**

Year 1:

1. Laboratory research:
  - i) 3 completed research project with results.
2. Community-Based Participatory Research
  - i) Two completed sub-projects with results
  - ii) One partially completed sub-project.

Deliverables: 6 Posters displayed to Meharry faculty and students at the end of the program.

Year 2:

3. Laboratory research:
  - (i) 3 completed research project with results.
4. Community-Based Participatory Research
  - (ii) 2 completed sub-projects with results
  - (iii) 2 partially completed sub-project.

Deliverables: 5 Posters displayed to Meharry faculty and students at the end of the program.

## **CHALLENGES:**

### **Selection of Summer Interns:**

Our previous method of selecting summer interns was based on interview performance. Invitation to interview was based on their application statement of interest in a biomedical research career pathway. Towards the end of the intern period some interns expressed the desire for the type of research they were not assigned to. In the second year students were required to state the type of pilot project they prefer and were only interviewed for that position. Each mentor interviewed an average of 2 applicants and selected one for the summer. In the second year mentors had the option to terminate a non-performing intern.

### **Report Preparation:**

It was much easier for the basic science interns to complete their pilot project during the given period. The community-based interns appeared to need more time for community outreach and data management, resulting in some uncompleted posters. All interns were required to develop and present a PowerPoint of their pilot project that covered the following areas: Introduction, Aims & Objectives, and Materials and Methods. That way they were able to practice oral presentation techniques. They were able to provide some preliminary results and learn how analyze their data

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and provide basic frequency tables and cross tabulations. They also learned to conduct t-test analysis to compare continuous variables across two sub-groups.

## **CONCLUSIONS:**

This is a very successful summer research program for HBCU undergraduates such that the Department of Defense may consider requesting application for grant renewal for another two-year period to maintain the momentum of collaboration between Meharry Medical College and Fisk University undergraduates. The program can be expanded to include a similar number of undergraduates from the nearby Tennessee State University (TSU). This program has successfully stimulated the interest of twenty-four minority undergraduates in the area of prostate cancer disparity research, they have all demonstrated and showed evidence of their ability to conduct scientifically sound research. Two of the interns are already in medical school, one has been admitted to school of dentistry, one is already in a graduate program, and one more is in the process of applying to dental school. Two of our interns now hold research assistant positions.

Mentors will certainly have to apply for additional funds to continue with their prostate cancer research and maintain their enthusiasm for training undergraduates in biomedical research.

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REFERENCES:

APPENDIX:

Appendix 1: Program Seminar Flyer 2013

Appendix 2: Application Package 2013

Appendix 3: Program Evaluation Forms

Appendix 4: Program Coursework Schedules 2013

Appendix 5: Poster Titles 2012 & 2013



***MEHARRY MEDICAL COLLEGE AND FISK UNIVERSITY  
INVITES YOU TO THE***

***A Seminar  
Summer Research Training in  
Prostate Cancer Health Disparities***

**Thursday, March 14, 2013**

**11:30 a.m. - 1:00 p.m.**

**Appleton Room**

*Valuable information about the opportunity to participate in the 2013 Prostate Cancer Summer Research Training Program sponsored by the US Department of Defense will be provided. Successful student applicants will be expected to complete a pilot research project during this period, and will be paid a stipend as summer interns.*

*5 research professors from Meharry Medical College & Vanderbilt University will be presenting their prostate cancer research.*

*Lunch will be available for the first 40 students.*

***“COME LEARN MORE ABOUT THIS GREAT OPPORTUNITY”***



School of Medicine  
Department of Surgery

**Prostate Cancer Research Training in Health Disparities for HBCU Undergraduates  
(PCaRT Program)**

**2013 APPLICATION FORM**  
**Due: By 4:00pm. Friday 12<sup>th</sup> of April, 2013.**

**Instructions:** Complete the application to the best of your ability. Incomplete applications will **not** be considered. Type or print in blue or black ink. The recommendation letters should be enclosed in sealed envelopes. Staple the essays, transcript, and envelopes to the signed application form.

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Last Name	First Name	Middle Name
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SS # _____ - ____ - _____	DOB ____/____/____ MM DD YY	Gender:    ___Male    ___Female
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Class Standing    ___ Fr    ___ So    ___ Jr    ___ Sr	Major Advisor _____	Phone # _____
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Major: _____	GPA _____	Expected Graduation Date ____/____/____	Degree _____
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Current Mailing Address & Phone	Permanent Address & Phone (Parent / Guardian)
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Number/Street _____	Number/Street _____
---------------------	---------------------

City/State/Zip _____	City/State/Zip _____
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Current Phone # ( _____ ) _____ - _____	Current Phone # ( _____ ) _____ - _____
---	---

School Email Address: _____	Parent Email Address: _____
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Personal Email Address: _____	Parent Name: _____
-------------------------------	--------------------

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High School Attended	Address	City	State	Zip
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**List Science related Courses that you have taken or that you are currently taking?**

_____	_____	_____
_____	_____	_____

List extracurricular activities and special talents (include school, community, health, religious, and etc.):

1) _____	3) _____	5) _____
----------	----------	----------

2) _____	4) _____	6) _____
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Are you:   \_\_\_U.S. Citizen       \_\_\_Permanent Resident       \_\_\_Legal Alien   Visa # \_\_\_\_\_

### Self-Identification

\_\_\_African-American/Black       \_\_\_White       \_\_\_Specify Others \_\_\_\_\_

What health career are you planning to pursue? (Summary)

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Check if you have ever been immunized for:   Tuberculosis (TB) \_\_\_\_\_ If so, when \_\_\_\_\_

Hepatitis       \_\_\_\_\_ If so, when \_\_\_\_\_

Provide your health insurance information:

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Provider	Policy #	Telephone#
----------	----------	------------

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Emergency Contact Name	Phone#	Relation to You
------------------------	--------	-----------------

Signature\_\_\_\_\_

Date\_\_\_\_\_

### APPLICATION SUBMISSION

**Important:** Because of the large number of applicants, if all of the following **does not** accompany your completed application, you will **not** be considered for placement in this program.

1. One letter of recommendation:       – Letter can be from a Fisk University faculty.  
  – Letter **must** be received in a sealed envelope.
2. Personal Statement (1-2 pages) about your long term goals and why you think you deserve this award.  
  – Typed in 12 fonts, single-spaced.
3. Official copy of your most recent transcript
4. One letter of recommendation from a community member (Volunteer center, religious organization, etc.)

### Return or mail completed application packet to:

Dr. Jennifer Adebajo, Department of Sociology, Park Johnson Building, Room 311, Fisk University, 1000 7<sup>th</sup> Ave. North, Nashville, TN 37208   Office (615) 329-8756   E-Mail: [jadebanj@fisk.edu](mailto:jadebanj@fisk.edu)

**For additional information or questions:** Contact Dr. Flora A. M. Ukoli, Program PI at [fukoli@mmc.edu](mailto:fukoli@mmc.edu)

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1005 Dr. D. B. Todd, Jr., Blvd.  
Nashville, TN 37208-3599  
Phone: (615) 327-6342   Fax: (615) 327-5579



# PROGRAM EVALUATION FORM

## The Prostate Cancer Research Training (PCaRT) Program Summer 2013



Intern Name: \_\_\_\_\_

Date: \_\_\_\_\_

This evaluation provides you the opportunity to assess your Cancer Health Disparity Research Summer Intern. The results will be used to provide a basis for inviting the student back next summer, and may provide some insight into improving the selection process in the future. ....*Thank you!!*

SECTION 1: Items A-D should be answered according to the following scale:

**E = Not Applicable**  
**D = Strongly Disagree**  
**C = Mildly Disagree**  
**B = Mildly Agree**  
**A = Strongly Agree**

### A. Organizational Structure

1. The Intern attended all program research activities on time.	A	B	C	D	E
2. The Intern exhibited a high degree of interest in the research process/project.	A	B	C	D	E
3. The Intern performed research tasks diligently.	A	B	C	D	E
4. The Intern demonstrated a high level of understanding of research material/information.	A	B	C	D	E

### B. Instructor-Student Interaction or Rapport

5. The Intern discussed freely and was open to my opinions and suggestions about research.	A	B	C	D	E
6. The Intern was able to provide reasonable answers to research related questions.	A	B	C	D	E
7. The Intern actively assisted me with difficulty research challenges.	A	B	C	D	E
8. The Intern responded to my research project related concerns effectively.	A	B	C	D	E

### C. Communication Skills

9. The Intern spoke clearly and was comprehensible.	A	B	C	D	E
10. The Intern was ready to learn new research techniques/methods.	A	B	C	D	E
11. The Intern was respectful to research participants.	A	B	C	D	E
12. The Intern was respectful to research animals/cells & equipment/materials/ supplies	A	B	C	D	E
13. The Intern's reports/presentations were almost always focused.	A	B	C	D	E
14. The Intern is competent / skilled in collecting research data.	A	B	C	D	E
15. The Intern is competent / skilled in collating and managing research data.	A	B	C	D	E
16. The Intern's poster has been developed to an acceptable standard.	A	B	C	D	E
17. The Intern is capable of summarizing and emphasizing major research findings.	A	B	C	D	E

### D. Workload Difficulty & Evaluation

18. The Intern needed very little help to understand the research related protocol and manuscripts.	A	B	C	D	E
19. The Intern was able to complete research tasks in the allocated time.	A	B	C	D	E
20. The Intern was able to complete research reading materials in good time.	A	B	C	D	E
21. The Intern's overall performance was commendable.	A	B	C	D	E
22. I am willing to invite the Intern back next Summer to continue with the research project.	A	B	C	D	E





# PROGRAM EVALUATION FORM

## The Prostate Cancer Research Training (PCaRT) Program

### Summer 2013



#### Section 2: Open Remarks/Suggestions.

Please indicate below notable observations you have about the Intern. **Please be specific....give examples.**

Domains	Comments
Strengths	
Challenges	
Suggestions for improvement	
Others:	
In a grade of <b>A</b> (Excellent); <b>B</b> (Very Good); <b>C</b> (Good); <b>D</b> (Fair), <b>E</b> (Poor) what grade will you give the Intern? _____	

Mentor:      Signature\_\_\_\_\_

Print Name: \_\_\_\_\_

# PROGRAM EVALUATION FORM

## The Prostate Cancer Research Training (PCaRT) Program

Summer Internship Year: 2013

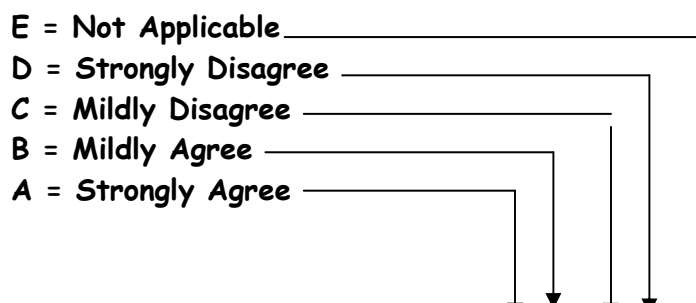
Course: Prostate Cancer Research Training

Mentor: \_\_\_\_\_

Research Project \_\_\_\_\_

This questionnaire provides you with the opportunity to evaluate your cancer research training experience as a Summer Intern at Meharry. The results will be used to provide a basis for program improvement and overall effectiveness. Your invitation to a 2<sup>nd</sup> year of the program will depend on your performance during the summer internship period and your continuing interest in your project after the summer, and will not be based on your response on this form. ....*Thank You!!*

SECTION I: Items **A-C** should be answered according to the following scale:



### Section A - Organization

1. Learning objectives were clearly stated.	A	B	C	D	E
2. The syllabus/tasks were organized and clear.	A	B	C	D	E
3. Grading policy explained	A	B	C	D	E
4. Time allocated adequately covered the content/tasks appropriate.	A	B	C	D	E

### Section B - Content

5. The application of principles and concepts to problem solving was emphasized.	A	B	C	D	E
6. The experience provided familiarization with the research topic area.	A	B	C	D	E
7. The experience provided professional insight into the research methods/techniques.	A	B	C	D	E
8. The program content was appropriate for the current level of student knowledge.	A	B	C	D	E
9. Hand out and other materials were up to date	A	B	C	D	E

### Section C - Evaluation

10. Adequate discussion sessions were scheduled during the orientation week.	A	B	C	D	E
11. Discussion sessions with the mentor were adequate.	A	B	C	D	E
12. Feedback on my performance was provided in reasonable time.	A	B	C	D	E

# PROGRAM EVALUATION FORM

## The Prostate Cancer Research Training (PCaRT) Program

SECTION 2: Items **D-H** should be answered according to the following scale:

**E = Not Applicable**  
**D = Strongly Disagree**  
**C = Mildly Disagree**  
**B = Mildly Agree**  
**A = Strongly Agree**

### D. Organizational Structure

1. The mentor attended all research activities	A	B	C	D	E
2. Materials presented by Guest Speakers addressed stated learning objectives.	A	B	C	D	E
3. Research activities began and ended on time.	A	B	C	D	E

### E. Instructor-Student Interaction or Rapport

4. My mentor had office hours for consultations.	A	B	C	D	E
5. My mentor encouraged discussions and was open to my opinions.	A	B	C	D	E
6. I was given opportunities to ask questions.	A	B	C	D	E
7. My mentor actively helped me when I had difficulty.	A	B	C	D	E
8. My mentor responded to my concerns effectively.	A	B	C	D	E

### F. Teaching Skill, Communication Ability

9. My mentor used language that was comprehensible and spoke clearly.	A	B	C	D	E
10. Overheads/Slides were readable and comprehensive.	A	B	C	D	E
11. My mentor actively engaged me in a learning process.	A	B	C	D	E
12. My mentor used examples or illustrations to clarify reading materials.	A	B	C	D	E
13. My mentor's presentations/discussions were almost always focused.	A	B	C	D	E
14. My mentor summarized or emphasized major points.	A	B	C	D	E

### G. Workload, Program Difficulty & Evaluation

15. My mentor tried to cover too much material.	A	B	C	D	E
16. I needed help to understand most of the materials.	A	B	C	D	E
17. More time should have been allocated to this section / course.	A	B	C	D	E
18. The reading assignments were reasonably easy to understand.	A	B	C	D	E
19. My mentor expectations on the students were reasonable.	A	B	C	D	E
20. My mentor explained to me how I would be evaluated.	A	B	C	D	E

### H. Impact on Students

21. My mentor enhanced my knowledge in Biomedical / Epidemiology / Health science research.	A	B	C	D	E
22. My interest in research increased as a result of this program experience.	A	B	C	D	E
23. I learned useful career enhancing skills in this program.	A	B	C	D	E

# PROGRAM EVALUATION FORM

## The Prostate Cancer Research Training (PCaRT) Program

### Section 3: Open Remark/Suggestions.

Your comment on strengths, weaknesses you have observed and suggestions for improvements with regard to the following will be appreciated:

	<b>Strengths</b>	<b>Weaknesses</b>	<b>Suggested Improvement</b>
Mentor 1 At Meharry			
Mentor 2 At Meharry			
Fisk University Mentor			
Research Activities			
Research Reports			
Others			
In a grade of <b>A</b> (Excellent); <b>B</b> (Very good); <b>C</b> (Good); <b>D</b> (Fair); <b>E</b> (Poor), what grade would you give to this Summer Research Internship? _____			

Overall it was a good summer program and I learned a great deal. I feel that better communication is needed between the mentors so that the program can run more smoothly.

**Prostate Cancer Summer Research Training in Health Disparities**  
**Collaborative Undergraduate Historically Black Colleges and Universities (HBCU) Program**

Meharry Medical College & Fisk University

**PCaRT Short Prostate Cancer Course: May 21 – May 31, 2013**

Day	8:00 - 10:00 am	10:00 - 12 noon	12 nn - 1 pm	1 :00 - 2:00 pm	2:00 - 5:00 pm
Tuesday May 21	Orientation/ Data Collection <a href="#">Dr. Flora Ukoli</a> The IRB Process: <a href="#">Ms. Shannon Roberson</a>	Cancer Biology I <a href="#">Dr. L. Stewart</a>	L  U  N  C  H	Community-Based Participatory Research. <a href="#">Dr. Leah Alexander</a>	IRB Training <a href="#">Ms. S. Roberson</a>
Wednesday May 22	<u>Project: Dr. F. Ukoli</u> Prostate Cancer Education <u>Project: Dr. F. Ukoli</u> Vitamin E & Prostate Cancer	Hazard Communication Standard Training: <a href="#">Mr. D. Powell</a> Blood Borne Pathogen Standard Training <a href="#">Mr. Cedric Harville</a>		Epidemiology of Prostate Cancer. <a href="#">Dr. J. Fowke</a>	Cancer Biology II <a href="#">Dr. L. Stewart</a> <u>Project: Dr. L. Stewart</u> Cell Study
Thursday May 23	Research Ethics <a href="#">Dr. C. Freund</a>	Introduction to Biostatistics <a href="#">Mr. Tan Ding</a>		Digital Library <a href="#">Ms. A. Whitehead</a> Informatics <a href="#">Dr. F. Barnes</a>	Ca Biology: Genes and PCa <a href="#">Dr. Z. Chen</a> <u>Project: Dr. Z. Chen</u> Animal Study
Friday & Monday	Memorial Day Weekend May 24 - May 27				
Tuesday May 28	Genomics <a href="#">Dr. S. Pratap</a>	Case-Control & Cohort Studies <a href="#">Dr. J. Fowke</a>	L  U  N  C  H	IACUC <a href="#">Dr. Dana Marshall</a>	IIACUC Online Training <a href="#">Ms. Shonta Winters</a>
Wednesday May 29	SPSS Data Management Workshop <a href="#">Dr. F. Ukoli</a>	Community Outreach <a href="#">Ms. Michelle Reece</a> Community Navigator <a href="#">Dr. Deon Tolliver</a>		Health Disparity <a href="#">Dr. Kushal Patel</a>	Genes and Cancer <a href="#">Dr. S. Abdulkadir</a> <u>Project: Dr. O. Abdulkadir</u> Animal Model
Thursday May 30	Cancer Epidemiology <a href="#">Dr. M. Sanderson</a>	<u>Proj.: Dr. M. Sanderson</u> Prostate Cancer Research		Mentors' laboratory	
Friday May 31	Mentors' Laboratory			Management of Cancer <a href="#">Dr. L. Dent</a>	Mentors' Laboratory
Saturday Sunday TBA	Community Outreach: Community Health Fair SUMMER INTERNS & Medical & MSPH Graduate Research Students				

**Seminar: Guest speakers and Seminar dates/times for subsequent weeks will be announced.**

**Funded by DOD Award W81XWH-12-1-0114**

**Prostate Cancer Summer Research Training in Health Disparities**  
**Collaborative Undergraduate Historically Black Colleges and Universities (HBCU) Program**

Meharry Medical College & Fisk University

**PCaRT Short Prostate Cancer Course (May 21 – May 31, 2013): Second Week Schedule Revision**

Day	8:30am. - 10:00am.	10:00am. - 12 noon	12 nn -1 pm	1:00pm. - 2:00pm	2:00 - 3:00pm. & 3:00 - 5:00pm.	
Friday & Monday	Memorial Day Weekend May 24 - May 27					
Tuesday May 28	Genomics Dr. S. Pratap	Case-Control & Cohort Studies Dr. J. Fowke	L U N C H	IACUC Dr. Dana Marshall	IIACUC Online Training Ms. Shonta Winters	
Wednesday May 29	SPSS Data Management Workshop Dr. F. Ukoli	Community Outreach Ms. Michelle Reece Community Navigator Dr. Deon Tolliver		Health Disparity Dr. Kushal Patel	Genes and Cancer Dr. S. Abdulkadir Project: Dr. O. Abdulkadir Animal Model	
Thursday May 30	Cancer Epidemiology Dr. M. Sanderson	Proj.: Dr. M. Sanderson Prostate Cancer Research		Mentors' laboratory		
Friday May 31	Blood Borne Pathogen Standard Training Mr. Cedric Harville	Introduction to Biostatistics Dr. Vincent Agboto		Mentors' Laboratory	Management of Cancer Dr. L. Dent	Mentor's Lab.
Thursday June 6				Community Outreach: Nashville Fraternity (ALL SUMMER INTERNS) Starts at 5:30pm Address will be provided by Marcus Crayton		
Saturday June 8	Community Outreach: Community Health Fair (ALL SUMMER INTERNS) 10:30 am – 3:00pm. Andrew Jackson Court					

**Seminar: Guest speakers and Seminar dates/times will be announced.**

**Funded by DOD Award W81XWH-12-1-0114**



## Evaluating Decisional Conflict in a Prostate Cancer Education and Screening Program for Low-income African Americans

Pierre J. Moton<sup>2</sup>, Kushal Patel<sup>1</sup>, Alphonse Pasipanodya<sup>1</sup>, Khandekar Taher<sup>1</sup>, Rodney Davis<sup>3</sup>, Derrick Beech<sup>1</sup>, Flora A. Ukoli<sup>1</sup>  
<sup>1</sup>Department of Surgery, Meharry Medical College, <sup>2</sup>Fisk University, <sup>3</sup>Vanderbilt University,  
 Nashville, TN, U.S.A.



## High Blood Cholesterol and Prostate Cancer Risk

Tierra Dennis,<sup>1</sup> Maureen Sanderson,<sup>2</sup> Mary Kay Fadden,<sup>2</sup> Flora Ukoli,<sup>2</sup>

<sup>1</sup>Fisk University, Nashville, TN, <sup>2</sup>Meharry Medical College, Nashville, TN



## Prostate Cancer Screening Among Diabetics and Non-diabetics

Jacquelyn Favours,<sup>1</sup> Maureen Sanderson,<sup>2</sup> Jay Fowke,<sup>3</sup> Flora Ukoli,<sup>2</sup>

<sup>1</sup>Fisk University, Nashville, TN; <sup>2</sup>Meharry Medical College, Nashville, TN; <sup>3</sup>Vanderbilt University, Nashville, TN



## THE EFFECT OF ANDROGEN-REGULATED ONCOMIRS, MIR-27A/B ON PEROXISOME PROLIFERATOR ACTIVATED RECEPTOR GAMMA (PPAR $\gamma$ ) LEVELS IN HUMAN PROSTATE CANCER CELLS

Peace Odiase, Emuejevoke Olokpa, and LaMonica Stewart

Department of Biochemistry and Cancer Biology, Meharry Medical College, Nashville, TN 37208



## The Effect of Androgen Receptor Function on Pioglitazone Responsiveness in Prostate Cancer Cells

Debresha Shelton<sup>1</sup> and LaMonica Stewart<sup>2</sup>

<sup>1</sup>Department of Biology, Fisk University, Nashville, TN 37208

<sup>2</sup>Department of Biochemistry and Cancer Biology, Meharry Medical College, Nashville, TN 37208



## Molecular Mechanisms of Acridone Alkaloids in The Inhibition of Prostate Cancer Cells

Prince Addai<sup>1</sup>, Wenfu Lu<sup>1</sup>, Qing Yang<sup>1</sup>, Yingqiu Xie<sup>1</sup>, Bo Li<sup>1</sup>, John Apraku<sup>2</sup>, Cosmas Okoro<sup>2</sup>, Zhenbang Chen<sup>1</sup>

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<sup>2</sup>Department of Chemistry, Tennessee State University, 3500 John A. Merritt Blvd, Nashville, TN 37209



## The Role of Vitamin E in Prostate Cancer risk among African-American Men

James Williams, Jr. Flora A. M. Ukoli.



## Level Of Prostate Cancer Knowledge Among African-American Men in Nashville and Memphis

Marcus Crayton, Flora A. Ukoli

Department of Surgery, Meharry Medical College, Fisk University.  
Nashville, TN. U.S.A.



## Effects of Pim1 Inhibition on Prostate Cancer

Sarki Abdulkadir, Irina Doubinskaia, Riet van der Meer, Jie Wang, Austin Kirschner, Ashmit Mittal

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<sup>2</sup>Department of Surgery, Meharry Medical College, 1005 Dr. D.B. Todd Jr. Blvd. Nashville, TN 37208



## The Role of NKX3.1-regulated gene, *RAMP1*, in Prostate Tumorigenesis

Raquel Blassingame<sup>1</sup> Monica N. Logan<sup>2</sup> Sarki A. Abdulkadir<sup>3</sup>

<sup>1</sup>Fisk University, Nashville, TN, <sup>2</sup>Meharry Medical Center, Nashville, TN, <sup>3</sup>Vanderbilt University Medical Center, Nashville, TN



## Dietary Vitamin E Intake and Prostate Cancer Risk in African American Men

Contessa M. Davis, Flora Ukoli, M.D., MPH

Fisk University, Meharry Medical College



## The Role of Religion in Prostate Cancer Screening in African-American Men in Nashville, TN

Candace Jones<sup>1</sup>, Jennifer Adebajo, Ph.D.<sup>2</sup>, Flora A. Ukoli<sup>2</sup>, MD., MPH.

<sup>1</sup>Fisk University, Nashville, TN., <sup>2</sup>Meharry Medical College, Nashville, TN.



## Identification of Pten Inactivation in Genetically-Engineered Mouse Models

Ayesha Sease, Zhenbang Chen

Fisk University, Meharry Medical College

